https://doi.org/10.1016/j.htct.2020.10.757

756

DERRAME PLEURAL EM EX-FUMANTE: UM RELATO DE CASO

F.L.O. Lima, F.C. Almeida, P.C. Almeida

Faculdade Nobre de Feira de Santana, Feira de Santana, BA, Brasil

Introdução: Caracteriza-se como Efusão ou Derrame Pleural (DP) a discrepância entre a produção e a eliminação do líquido pleural, ocasionando o acúmulo do mesmo na cavidade que o comporta. A classificação do DP pode ser em transudado ou exsudato, possuindo como variados os fatores ocasionais. **Relato de caso:** Trata-se da descrição do caso de uma paciente do sexo feminino, 79 anos, hipertensa, ex-fumante, a qual se dirigiu ao hospital no dia 19/08/2018, relatando quadro de dispneia aos médios esforços, evoluindo para pequenos esforços, por vezes ao repouso, apresentando fala entrecortada com melhora ao permanecer em decúbito lateral esquerdo. Descreve quadros de tosse seca crônica, esporádica, que ganhou maior assiduidade nesse período principalmente à noite, no entanto, com ausência de secreção, negando febre, síncope e dispneia paroxística noturna. Realizou exames complementares (laboratoriais, radiografia simples de tórax e ECG), o que evidenciou um derrame pleural à esquerda, sendo indicado o uso de corticoterapia (hidrocortisona 100 mg duas vezes ao dia) e antibioticoterapia (Clindamicina, Ciprofloxacino e Ceftriaxone). Após drenagem pulmonar, evolução clínica e remissão dos sintomas, recebeu alta. Uma semana após a admissão, apresentou retorno da dispneia o que a motivou procurar novo atendimento médico, realizou radiografia de tórax, evidenciando volumoso derrame pleural. Foi submetida à TC de tórax e toracocentese com biópsia de pleural, sob tratamento antibiótico e otimização de medidas de Insuficiência Cardíaca Congestiva (ICC). Evoluindo de maneira estável, com melhora progressiva do quadro, recebendo alta, sem relatos de recorrência. **Objetivo:** Relatar um caso de derrame pleural efetivado em uma paciente ex-fumante, explanar a notabilidade dos exames de imagem para um diagnóstico idôneo, bem como a importância da associação entre o diagnóstico clínico, laboratorial e tratamentos adequados. **Material e métodos:** As informações foram obtidas mediante entrevista com a paciente, análise dos métodos diagnósticos e revisão de literatura, baseando-se em publicações entre os anos de 2015 a 2020. **Discussão:** Variadas são as causas do derrame pleural, podendo advir de patologias pulmonares, doenças extrapulmonares, enfermidades da pleura e a utilização de determinadas drogas. A insuficiência cardíaca é a causa mais prevalente, seguido por infecções virais e bacterianas, hidrotórax, neoplasias e tromboembolismo pulmonar. O tabagismo está estreitamente vinculado com o aumento do estresse oxidativo, podendo contribuir para patologias do sistema respiratório e câncer. O ato de fumar é compreendido como o principal fator para o acometimento de doenças do trato respiratório, sendo essas dribladas, caso essa prática seja evitada. Os exames de imagem, teste de função pulmonar, bem como a história clínica do paciente, são ferramentas de suma importância na avaliação das doenças respiratórias. Além disso, é fundamental para o monitoramento do progresso do paciente. **Conclusão:** Os métodos diagnósticos de imagem demonstram grande relevância para a conduta correta sob doenças relacionado à pleura. O diagnóstico diferencial torna-se indispensável para a determinação do derrame pleural. A associação correta, de diferentes métodos de diagnóstico resultarão na melhora e/ou cura da enfermidade do indivíduo. O tratamento do DP tem como principal finalidade expandir o pulmão, sendo necessário esvaziar e esterilizar o espaço pleural.

https://doi.org/10.1016/j.htct.2020.10.758

757

EVALUATION OF IN VITRO CULTIVATION OF ENDOTHELIAL PROGENITOR CELLS ON VASCULAR SCAFFOLDS FUNCTIONALIZED WITH NANOCAPSULES CONTAINING HEPARIN

B.B.J. Leal[a], D.I. Braghirolli[a], P. Pranke[a,b]

[a] *Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil*
[b] *Stem Cell Research Institute*

Introduction: Synthetic vascular grafts are widely used in large diameter vessels. However, in vessels < 6 mm of diameter, they have a high failure rate due to thrombus formation. Electrospun scaffolds functionalized with biomolecules, such as heparin (Hep), can be an interesting tool for use as vascular grafts. The Hep can improve the vessel regeneration and prevents the failure of graft by thrombi formation. For blood vessel regeneration, the establishment of vascular endothelium is the initial goal for the success of the grafts. Endothelial progenitor cells (EPCs) demonstrate a high capacity of angiogenesis and vasculogenesis, contributing to graft endothelization. **Aim:** To evaluate the *in vitro* cultivation of EPCs on polycaprolactone (PCL) electrospun scaffolds functionalized with nanocapsules (NC) containing Hep. **Methodology:** PCL scaffolds were produced by the electrospinning technique. After their production, the scaffolds were functionalized with NC containing Hep. To achieve this, the NC were deposited on the scaffolds through the electrospraying technique, from a emulsion of poly(lactic-*co*-glycolic acid) (PLGA) and Hep. Following this, the EPCs were cultivated on the scaffolds. Three groups were evaluated: PCL with empty NC (PCL/NE), PCL with NC containing Hep (PCL/Nhep) and a culture plate treated with collagen (control group). The biological characterization of the scaffolds was made in terms of cell morphology, adhesion and viability. To evaluate EPC morphology, their nuclei were labeled with DAPI and the cytoskeleton with phalloidin. For cell adhesion, the cells were labeled with DAPI and observed under fluorescence microscopy. Nine random fields from each sample were analyzed, using the LAS × software, where it was possible to estimate the number of adhered cells/sample. For viability test, the cells were cultivated for 1, 3 and 7 days and analyzed by MTT. **Results and discussion**: In the cell adhesion test, the control group showed 1191±412.6 cells/sample, considered to be the group with the

highest number of cells than the others. The scaffolds groups had similar cell adhesion: PCL/NE 697.5±309.7 and PCL/Hep 692.5±145.1 cells/sample. The cell viability showed results similar to those of adhesion. The control group showed superior viability to the scaffold groups ($p<0.05$) in the three periods evaluated while the PCL/NE and PCL/NHep showed similar absorbance. The control group was treated with collagen, an endogenous component of extracellular matrix, which favors the adhesion and growth of EPCs. However, although the control group obtained grater cell adhesion than the other groups, the scaffolds also prompted cell adhesion and provided a 3D structure that can be used in vascular tissue engineering. In addition, the MTT test demonstrated that the viability of EPCs increased during the cultivation time on the scaffolds groups. Moreover, after 7 days of cultivation, the EPCs showed elongated morphology on the scaffolds, indicating that the cells had good adaptation on these structures. **Conclusion:** The scaffolds favored EPC adhesion and growth during the evaluated time. In addition, the presence of NC did not alter these parameters. These resulted demonstrated that the developed scaffolds can be an interesting alternative for vascular tissue engineering.

https://doi.org/10.1016/j.htct.2020.10.759

758

MOLECULAR CHARACTERIZATION OF CHRYSEOBACTERIUM INDOLOGENES WITH MULTIDRUG RESISTANCE IN THE BRAZILIAN AMAZON REGION

E.A. Freitas[a,b], W.A. Ferreira[b,c], R.A.A.B. Filho[d], C.M.C. Oliveira[d], A. Dhyani[a,b], L.M. Silva[a,b], N.A. Fraiji[a,b], C.M. Ferreira[a,b]

[a] *Fundação Hospitalar de Hematologia e Hemoterapia do Amazonas, Manaus, AM, Brazil*
[b] *Universidade do Estado do Amazonas (UEA), Manaus, AM, Brazil*
[c] *Fundação de Dermatologia Tropical e Venereologia Alfredo da Matta, Manaus, AM, Brazil*
[d] *Universidade Federal do Amazonas (UFAM), Manaus, AM, Brazil*

Chryseobacterium indologenes is an emerging nosocomial pathogen that produces IND-type chromosomal metallo-beta-lactamase. The most common *Flavobacterium* isolated from clinical specimens is *C. indologenes*, associated with different types of infections. The clinical isolates of *C. indologenes* have been associated with severe infections in urinary tracts, pneumonia, sepsis, meningitis, abscess formation, and ocular infections, with high mortality rates, mainly in immunocompromised patients and newborns. The phenotype and molecular aspects of two multidrug resistant *C. indologenes* strains and the analysis of the tertiary structure of the IND enzyme were studied. Identification of species and susceptibility tests were performed using the Vitek-2 compact. Chromosomal and plasmid DNA were extracted using PureLink- Genomic DNA Mini Kit and PureLink Quick Plasmid Miniprep Kit, and the sequencing was performed using ABI 3130 genetic analyzer. Two strains were isolated and are registered as P-23 and P-113. Of the two, P-113 was sensitive to ciprofloxacin and cefepime only, whereas the P-23 showed reduced sensitivity to ceftazidime, ciprofloxacin, and tigecycline. The genetic analysis of both isolates identified the presence of the blaIND-like gene, with similarity to IND-3 and IND-8 alleles. The IND-3 identified in the P-133 sample presented a single mutation at position T355G, which corresponds to a nonsynonymous substitution of the amino acid at position 119 (Ser/Ala). The phylogenetic analysis of INDs showed lineages that are circulating in Asian and European countries. These results emphasize the need for effective preventive actions to avoid the dissemination of this type of pathogen in the hospital environment.

https://doi.org/10.1016/j.htct.2020.10.760

759

NEW ST623 OF CRYPTOCOCCUS NEOFORMANS ISOLATED FROM A PATIENT WITH NON-HODGKIN'S LYMPHOMA IN THE BRAZILIAN AMAZON

L.M. Silva[a,b], W.A. Ferreira[b,c], R.A.A.B. Filho[d], M.V.G. Lacerda[e,f], G.M.A. Ferreira[a,b], M.N. Saunier[a], M.M. Macedo[a,b], D.A. Cristo[a], M.J. Alves[f], A.B.J. Matsuura[f], C.M. Ferreira[a,b]

[a] *Fundação Hospitalar de Hematologia e Hemoterapia do Amazonas, Manaus, AM, Brazil*
[b] *Universidade do Estado do Amazonas (UEA), Manaus, AM, Brazil*
[c] *Fundação de Dermatologia Tropical e Venereologia Alfredo da Matta, Manaus, AM, Brazil*
[d] *Universidade Federal do Amazonas (UFAM), Manaus, AM, Brazil*
[e] *Fundação de Medicina Tropical Dr. Heitor Vieira Dourado, Manaus, AM, Brazil*
[f] *Instituto Leônidas e Maria Deane, Manaus, AM, Brazil*

Cryptococcosis is a serious disease possessing a wide geographic distribution, with a global burden of 957,900 cases of cryptococcal meningitis per year, resulting in 624,700 deaths. It is an opportunistic mycosis caused by a complex called *Cryptococcus neoformans* and *C. gattii*, classifed into four subtypes: VNI-VNII, VNIII, VNIV and VGI, VGII, VGIII, VGIV. It is most critical when it affects immunocompromised patients, with AIDS, tuberculosis or other diseases that require prolonged hospitalization. This study described a molecular epidemiology, the phylogenetic relationship, along with antifungal susceptibility test of a new ST 623 of *C. neoformans* isolated in a patient with non-Hodgkin's Lymphoma, from Manaus, Brazil. Following the two positives blood cultures, the subculture was carried out in modifed Sabouraud dextrose agar and later in the media of canothothin-glycine blue bromothymol (CGB) and Niger Seed Agar for species diferentiation. The phenotypic identification and minimum inhibitory concentration (MIC) values for fuconazole, amphotericin B and fucytosine were performed using VITEK-2 Compact equipment. DNA was